What is claimed is:

1. An optical disc for separating disperse particles from particle agglutinants, comprising a separation zone structure having solid components spaced apart to form gaps, the gaps being large enough to allow disperse particles to change position relative to the center of the disc by passing through the separation zone structure, the gaps being too small to allow particle agglutinants to pass through the separation zone structure.

2. The disc of claim 1, further comprising:

a chamber for holding an organic specimen having disperse particles and particle agglutinants, the chamber being in communication with the separation zone structure.

3. The disc of claim 1, further comprising:

an information storage mechanism having result data derived from a test performed on the disc.

4. The disc of claim 1, further comprising:

an information storage mechanism having instruction data directed to a procedure for use with the disc.

5. Rotating apparatus for separating disperse particles from particle agglutinants, comprising a separation zone structure having solid components spaced apart to form gaps, the gaps being large enough to allow disperse particles to change position relative to the center of rotation by passing through the separation zone structure, the gaps being too small to allow particle agglutinants to pass through the separation zone structure.

6. The apparatus of claim 5, further comprising:

a chamber for holding an organic specimen having disperse particles and particle agglutinants, the chamber being in communication with the separation zone structure.

7. The apparatus of claim 5, further comprising:

an information storage mechanism having result data derived from a test performed on the apparatus.

8. The apparatus of claim 5, further comprising:

an information storage mechanism having instruction data directed to a procedure for use with the apparatus.

9. An optical disc, comprising:

a microfluidic circuit that is responsive to centrifugal force resulting from rotation of the disc, the circuit comprising:

an entry chamber for holding a specimen having disperse particles and particle agglutinants; and

a separation zone structure disposed downstream of the entry chamber, the specimen being urged toward the separation zone structure by the centrifugal force, the separation zone structure having gaps, the gaps being large enough to allow disperse particles to escape the entry chamber, the gaps being small enough to retain particle agglutinants in the entry chamber.

10. The optical disc of claim 9, further comprising:

a substrate supporting the microfluidic circuit and having a tracking groove formed therein; and

a reflective layer formed on at least a portion of said substrate so that an incident beam of electromagnetic energy may track along said groove; wherein when the substrate is rotated the presence of particle agglutinant can be determined by the coverage of the tracking groove by agglutinants in the entry chamber after disperse particles escape through the separation zone structure.

11. The optical disc of claim 10, wherein the microfluidic circuit further comprises a collection zone disposed downstream of the separation zone structure, the disperse particles being urged toward the collection zone from the separation zone structure by the centrifugal force.

12. The optical disc of claim 11, wherein when the substrate is rotated the presence of disperse particles can be determined by the coverage of the tracking groove by disperse particles in the collection zone.

13. The optical disc of claim 11, wherein the substrate includes a center and an outer edge, and the collection zone is positioned proximate the outer edge, the entry chamber is positioned proximate the center, and the separation zone structure is positioned therebetween so that when the substrate is rotated, particle agglutinants collect in the entry chamber and the separation zone structure allows disperse particles to pass therethrough and collect in the collection zone.

14. The optical disc of claim 10, wherein the separation zone structure includes a series of posts formed in the substrate, the posts being spaced relative to each other to allow disperse particles to pass through the separation zone structure while retaining particle agglutinants in the collection zone.

15. The optical disc of claim 10, wherein the separation zone structure includes a series of slits formed in the substrate, each slit having a predetermined width that allows disperse particles to pass therethrough while causing particle agglutinants to be retained in the collection zone.

16. The optical disc of claim 15, wherein the slits are formed by a series of rib structures disposed in the separation zone structure.

17. The optical disc of claim 16, wherein the structures forming the series of rib structures are substantially parallel to each another.

18. The optical disc of claim 16, wherein the structures forming the series of rib structures are radially directed from the center of the disc.

19. The optical disc of claim 10, wherein the predetermined width of each slit decreases as a function of increasing distance from the center of the disc.

20. The optical disc of claim 18, wherein each of the rib structures has a width that increases as a function of increasing distance from the center of the disc.

21. The optical disc of claim 14, wherein each post has a predetermined diameter.

22. The optical disc of claim 21, wherein for posts along a radius from the center of the disc along the substrate, the diameter of consecutive posts increases as a function of increasing distance from the center of the disc.

23. The optical disc of claim 14, wherein the number of posts per unit area increases as a function of increasing distance from the center of the disc.

24. The optical disc of claim 15, wherein the width of the slits decreases as a function of increasing distance from the center of the disc.

25. The optical disc of claim 9, wherein the separation zone structure includes a filter having a preselected porosity so that when the optical disc is rotated, disperse particles escape from the entry chamber and particle agglutinants are retained in the entry chamber.

26. The optical disc of claim 25, wherein the filter is formed from a material selected from the group consisting of glass fiber and plastic fiber.

27. The optical disc of claim 26, wherein the glass fiber is formed from a material selected from the group consisting of alumina, silica, and quartz.

28. The optical disc of claim 26, wherein the plastic fiber is formed from a material selected from the group consisting of cellulose acetate, cellulose nitrite, mixed cellulose esters, polyethersulfone polyvinyl chloride, polycrylonitrile, polycarbonate, polysulfone, polyfluorotetra-ethylene, polyvinylidene-fluoride, and cellulose.

29. The optical disc of claim 25, wherein the filter is formed from a material selected from the group consisting of glass particles and plastic particles.

30. The optical disc of claim 29, wherein the glass particles are formed from a material selected from the group consisting of alumina, silica, and quartz.

31. The optical disc of claim 29, wherein the plastic particles are formed from a material selected from the group consisting of cellulose acetate, cellulose

nitrite, mixed cellulose esters, polyethersulfone polyvinyl chloride, polycrylonitrile, polycarbonate, polysulfone, polyfluorotetra-ethylene, polyvinylidene-fluoride, and cellulose.

32. A method of using an optical disc comprising a microfluidic circuit that is responsive to centrifugal force resulting from rotation of the disc, the circuit comprising an entry chamber for holding a specimen having disperse particles and particle agglutinants; and a separation zone structure disposed downstream of the entry chamber, the specimen being urged toward the separation zone structure by the centrifugal force, the separation zone structure having gaps, the gaps being large enough to allow disperse particles to escape the entry chamber, the gaps being small enough to retain particle agglutinants in the entry chamber, the method comprising:

dispensing a biological sample material into the entry chamber;

dispensing an assay reagent including particles coated with at least one type of bioactive agent into the entry chamber;

mixing the biological sample material with the assay reagent;

allowing the biological sample material to react with the assay reagent to thereby facilitate formation of an agglutinant; and

rotating the optical disc so that non-agglutinated particles escape from the entry chamber through the separation zone structure.

33. The method of claim 32, wherein the optical disc has optical disc tracks and further comprises a collection zone disposed downstream of the separation zone structure and between the optical disc tracks and a light detector, the method further comprising:

determining a quantity of disperse particles by using the light detector to count the number of optical disc tracks in the collection zone covered by the disperse particles and performing a volume calculation based on the track count.

34. The method of claim 32, wherein the optical disc has optical disc tracks and the entry chamber is disposed between the optical disc tracks and a light detector, the method further comprising:

determining a quantity of particle agglutinants by using the light detector to count the number of optical disc tracks in the entry chamber covered by the particle agglutinants and performing a volume calculation based on the track count.

35. The method of claim 32, wherein the particles coated with the at least one bioactive agent comprises microparticles.

36. The method of claim 32, wherein the particles coated with the at least one bioactive agent comprises latex material.

37. The method of claim 32, further comprising diluting the biological sample material.

38. The method of claim 32, further comprising preprocessing the biological sample material.

39. The method of claim 32, wherein the particles coated with the at least one bioactive agent comprise polystyrene material.

40. The method of claim 32, wherein the at least one bioactive agent has specificity for use in a serological assay.

41. The method of claim 32, wherein the at least one bioactive agent has specificity for use in bacterial identification.

42. The method of claim 32, wherein the at least one bioactive agent has specificity for use in viral identification.

43. The method of claim 32, wherein the at least one bioactive agent has specificity for use in amoebic identification.

44. The disc of claim 1, further comprising:

tracks disposed proximal the separation zone structure, wherein the presence of material on a first side of the separation zone structure may be detected by analyzing a result of directing a light beam toward the tracks.

45. The disc of claim 44, wherein the tracks are disposed such that in operation the entrance to the separation zone structure is interposed between the tracks and a light beam detector.

46. The disc of claim 44, wherein the tracks are disposed such that in operation the tracks are interposed between the entrance to the separation zone structure and a light beam detector.

47. The disc of claim 44, further comprising a collection zone disposed downstream of the separation zone structure, wherein the tracks are disposed such that in operation the collection zone is interposed between the tracks and a light beam detector.

48. The disc of claim 44, further comprising a collection zone disposed downstream of the separation zone structure, wherein the tracks are disposed such that in operation the tracks are interposed between the collection zone and a light beam detector.

49. The method of claim 32, wherein the at least one bioactive agent has specificity for cardiolipin.

50. The method of claim 32, wherein the at least one bioactive agent has specificity for rheumatoid factor.

51. The method of claim 32, wherein the at least one bioactive agent has specificity for d-dimer.

52. The method of claim 32, wherein the at least one bioactive agent has specificity for e. coli 157.

53. The method of claim 32, wherein the at least one bioactive agent has specificity for c. difficile.

54. The method of claim 32, wherein the at least one bioactive agent has specificity for c. jejuni.

55. The method of claim 32, wherein the at least one bioactive agent has specificity for c. coli.

56. The method of claim 32, wherein the at least one bioactive agent has specificity for c. laridis.

57. The method of claim 32, wherein the at least one bioactive agent has specificity for meningitis.

58. The method of claim 32, wherein the at least one bioactive agent has specificity for H. Pylori.

59. The method of claim 32, wherein the at least one bioactive agent has specificity for C. Neoformans.

60. The method of claim 32, wherein the at least one bioactive agent has specificity for N. Gonorhoeae.

61. The method of claim 32, wherein the at least one bioactive agent has specificity for Staphlococcus Aureus.

62. The method of claim 32, wherein the at least one bioactive agent has specificity for S. Pneumoniae.

63. The method of claim 32, wherein the at least one bioactive agent has specificity for Streptococcus A.

64. The method of claim 32, wherein the at least one bioactive agent has specificity for Streptococcus B.

65. The method of claim 32, wherein the at least one bioactive agent has specificity for Streptococcus C.

66. The method of claim 32, wherein the at least one bioactive agent has specificity for Streptococcus F.

67. The method of claim 32, wherein the at least one bioactive agent has specificity for Streptococcus G.

68. The method of claim 32, wherein the at least one bioactive agent has specificity for Mycoplasma.

69. The method of claim 32, wherein the at least one bioactive agent has specificity for Rubella.

70. The method of claim 32, wherein the at least one bioactive agent has specificity for Varicella-Zoster Virus.

71. The method of claim 32, wherein the at least one bioactive agent has specificity for Mononucleosis.

72. The method of claim 32, wherein the at least one bioactive agent has specificity for Cytomegalovirus.

73. The method of claim 32, wherein the at least one bioactive agent has specificity for Lupus Erythematosus.

74. The method of claim 32, wherein the at least one bioactive agent has specificity for Cryptosporidium

75. The method of claim 32, wherein the at least one bioactive agent has specificity for Giardia.

76. The method of claim 32, wherein the at least one bioactive agent has specificity for C-Reactive Protein.

77. An optical disc for separating disperse particles from particle agglutinants, comprising:

a main chamber having a separation zone structure having solid components spaced apart to form gaps, the gaps being large enough to allow disperse particles to change position relative to the center of the disc by passing through the separation zone structure, the gaps being too small to allow particle agglutinants to pass through the separation zone structure;

a mixing chamber in communication with the main chamber; and

a target area in communication with the mixing chamber.

78. An optical disc for separating disperse particles from particle agglutinants, comprising:

a main chamber;

a mixing chamber in communication with the main chamber, the mixing chamber having a separation zone structure having solid components spaced apart to form gaps, the gaps being large enough to allow disperse particles to

change position relative to the center of the disc by passing through the separation zone structure, the gaps being too small to allow particle agglutinants to pass through the separation zone structure; and

a target area in communication with the mixing chamber.

79. An optical disc for separating disperse particles from particle agglutinants, comprising:

a main chamber;

a mixing chamber in communication with the main chamber; and

a target area in communication with the mixing chamber, the target area having a separation zone structure having solid components spaced apart to form gaps, the gaps being large enough to allow disperse particles to change position relative to the center of the disc by passing through the separation zone structure, the gaps being too small to allow particle agglutinants to pass through the separation zone structure.

80. A method of using an optical disc comprising a microfluidic circuit that is responsive to centrifugal force resulting from rotation of the disc, the circuit comprising a chamber for holding a specimen, the specimen being urged outward from the center of rotation by the centrifugal force, the disc having tracks disposed in a line intersecting the chamber and a beam detector, the method comprising:

detecting whether a beam intersecting the chamber and a track has been affected by the presence of the specimen in the chamber; and

calculating a volume of the specimen based on the detection.

81. An optical disc for separating disperse particles from particle agglutinants, comprising:

a separation zone structure having solid components spaced apart to form gaps; and

a material holding area in communication with the separation zone structure, the material holding area having freeze-dried bioactive agent material.

82. An optical disc for separating disperse particles from particle agglutinants, comprising:

a main chamber having a separation structure that defines first and second separation zones so that pieces of material having a first size are retained in the first separation zone and other pieces of material having a second size pass through the separation structure to the second separation zone, the size of the first separation zone relative to the size of the second separation zone beng substantially commensurate with the relative proportions of components of an expected sample; and

a track disposed in a line intersecting at least one of the first and second zones and a detector.

83. The optical disc of claim 82, wherein the track is used to quantitate the amount of material in the at least one of the first and second zones.

84. The optical disc of claim 82, wherein the second zone is at least ten times larger than the first zone.

85. The optical disc of claim 82, wherein the boundaries of the chamber include smooth curves.

86. The optical disc of claim 82, wherein the disc is configured to be used to process blood.

87. The optical disc of claim 82, wherein the disc is configured to be used in determining the hematocrit of blood.

88. The optical disc of claim 82, wherein the disc is configured to be used in an analysis of white blood cells.

89. The optical disc of claim 82, wherein the disc includes freeze-dried bioactive agent material.

90. The optical disc of claim 82, wherein the main chamber includes freeze-dried bioactive agent material.